ESG WHITE PAPER

Western Digital's Data Lake Strategy: Innovation for a Data-centric Future

Creating a Data Foundation with Western Digital

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Introduction

Organizations are looking to maintain leadership positions in their respective markets by being more data-driven and incorporating insights as quickly as possible into their value chains. To harness the constant growth of data and derive actionable insights in real time, IT must facilitate more intelligence across the business, and it starts with a strong data foundation—one that can combine and incorporate all data into decision making, including both structured and unstructured data, at scale. Western Digital recognizes this need as it has transformed to better address the demanding and dynamic needs of modern business requirements, utilizing its own technology to advance its data-driven strategy. And Western Digital is looking to share its technology and experiences to help customers align their data-centric goals with the right, future-proof data platform.

Prioritizing Data-driven Strategies

In order for organizations to derive value from their data, they need a practical data strategy that aligns to their business. They're looking to make investments in the areas of analytics to improve on the ability to analyze and act on data in real time, while incorporating historical data for a more complete picture of business scenarios. In fact, ESG research shows that nearly 1 in 3 (32%) organizations view improving data analytics for real-time business intelligence and customer insights as one of the top areas driving the most technology spending in their organization throughout 2019.[1]

The goal of these investments is to derive insights and take action as quickly and confidently as possible to increase operational efficiency, reduce costs, and scale the business. In fact, 53% of organizations cited improving operational efficiency as one of the top business objectives that drive organization's data analytics strategies. Additionally, 47% of organizations view reducing cost of business operations as a top objective, with 46% citing improved business decisions and strategy (see Figure 1).[2]

Figure 1. Top Eight Business Objectives Driving Organizations' Data Analytics Strategy

What ongoing business objectives drive your organization's data analytics strategy?
(Percent of respondents, N=310, multiple responses accepted)

Objective	Percent
Improved operational efficiency	53%
Reduced cost of business operations	47%
Improved business decisions and strategy	46%
Improved quality of products/services delivered	44%
Improved forecasting accuracy	39%
Minimized cost of maintaining compliance/minimized risk of noncompliance	33%
Quicker time to market for products/services	32%
Faster tactical response to shifting customer views	31%

Source: Enterprise Strategy Group

[1] Source: ESG Master Survey Results, *2019 Technology Spending Intentions Survey,* March 2019.
[2] Source: ESG Master Survey Results, *The State of Data Analytics*, August 2019. All other ESG research and references in this white paper have been taken from this master survey results set, unless otherwise noted.

Barriers to Data Insights

Before organizations can derive insights from data, they need to ensure the right data is available. Herein lies the problem: Disparate data sources of mixed structure are preventing organizations from having a complete view of their data footprint. Many organizations have invested in enterprise data warehouses (EDWs) and other storage options that can satisfy structured data requirements, but scale, cost, and flexibility are growing concerns. There's a demand to incorporate unstructured data into decision making and therefore organizations are looking for ways to combine structured and unstructured data for a more complete view of data and potential insights. This is supported by ESG research, with 35% of organizations stating that too many disparate data sources have one of the greatest adverse impacts on their data analytics strategy. And of the organizations that use both structured and unstructured data for analytics purposes, 45% analyze the data independently. With a desire to utilize more data across the business, organizations are seeking alternatives to how data is stored, managed, and analyzed.
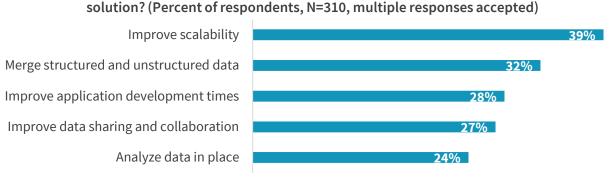
Data Lakes to the Rescue

To address the difficulties with disparate data sources, organizations are turning to data lakes to better integrate, store, and manage all data within the business. By serving as a centralized repository or collection of potentially relevant data that unites disparate data silos into a virtual single entity (regardless of structure, size, type, or dependency), data lakes can help organizations better organize, discover, analyze, understand, and gain value from their data. Because of the need for a smarter way to not only store, but also manage and analyze both unstructured and structured data in the same place, data lake adoption is on the rise. In fact, 60% of organizations are either using, planning to use, or exploring ways to use data lake technology.

But what business objectives are organizations looking to achieve with data lake technology? When ESG asked respondents to select their top objectives for utilizing a data lake, the most cited response was to improve scalability (see Figure 2): scalability of data storage, data access and higher end-user concurrency support, and integration of intelligent analytic applications. Rounding out the top five responses are merging structured and unstructured data (32%), improving application development times (28%), improving data sharing and collaboration (27%), and analyzing data in place (24%).

Figure 2. Top Five Objectives for Utilizing a Data Lake

What are or will likely be your organization's objectives for utilizing a data lake technology solution? (Percent of respondents, N=310, multiple responses accepted)

Improve scalability	39%
Merge structured and unstructured data	32%
Improve application development times	28%
Improve data sharing and collaboration	27%
Analyze data in place	24%

Source: Enterprise Strategy Group

So what are organizations looking for in a data lake solution to support their business objectives? Every organization should want their data to be stored securely and analyzed safely in a climate where cyber threats grow daily. As such, it's no surprise that security was the most often cited important consideration when selecting a data lake technology, followed by reliability, performance, and cost-effectiveness. Organizations want to act on insights in real time with intelligent analysis capabilities incorporated from the ground up. They want to deploy and maintain the foundation of their data

strategy with a future-proof data lake that ensures trust in their business' data and promotes enterprise-wide collaboration. And they're turning to modern data lake implementations to achieve their data-centric goals.

Western Digital

Western Digital is a global market leader for data-centric solutions with a rich portfolio of intellectual property, storage devices, and platforms appealing to both enterprise businesses and consumers. It designs, manufactures, and markets data-centric technology that focuses on providing the opportunity for enterprises and consumers to experience innovation and endless possibility in their own data strategy. At the forefront of technological innovation for many years, Western Digital drives business success by fueling data-driven futures. By always considering the expansive possibilities of data and what it can do for customers, Western Digital has no intention of slowing down its pioneering mentality. Western Digital continues to set strong foundational footwork in data technology and continues to perfect its craft by implementing its own technology to eliminate most of the difficulties that organizations face. Western Digital's focus is providing organizations with a foundation for a data-driven future that allows them to harness their potential power.

Object Storage

A cornerstone for helping organizations better incorporate and utilize data throughout their businesses, Western Digital manufactures its own range of high-density storage platforms. By pairing these platforms with object storage software from its technology alliance partners, Western Digital makes it simple for customers to deploy and manage petabyte-scale storage environments, offering the flexibility to meet the dynamic nature of business objectives and workflows. Western Digital's scale-out solutions, including S3-compliant on-premises object storage, help enterprise organizations address the data silo conundrum by enabling them (through an ISV) to use and merge all forms of data (structured and unstructured) into one unified repository. By consolidating data onto one platform, these organizations can take a new path to gain insights, improve operational efficiency, and improve customer satisfaction by establishing the foundation for a next generation data strategy. The most pertinent enhancements are improved business processes for greater operational efficiency, reduced costs, faster and quicker product development, more insights into new services, and a guaranteed better customer experience. And the power of these benefits allowed Western Digital itself to transform its own business operations by utilizing its technology and deploying object storage as a foundation for a data-centric future.

The Bigger Truth

Organizations are transforming to become more data-centric by investing in technology that enables them to be more data-driven and achieve their ongoing business objectives. While data silos, organization-wide collaboration, and the integration of next-generation technologies like artificial intelligence can prove difficult for many enterprises, a data lake is viewed as a way to collectively solve some problems. Western Digital understands the need to better utilize data because it transformed its own operations with its own technology to overcome these challenges and achieve data-driven goals. With an object storage solution serving as a foundation for its data strategy, Western Digital can now combine all forms of data into one unified repository. Using this gained knowledge and insights, Western Digital is focused on putting its customers on a path to embrace data as a key asset for future success.

Enterprise Strategy Group is an IT analyst, research, validation, and strategy firm that provides market intelligence and actionable insight to the global IT community.

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